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ABSTRACT

The guide aims at integrating the career education concepts of self-awareness, career awareness, and occupational awareness into the seventh grade science curriculum. Each of the units on self-knowledge, career preparation knowledge, and career planning contain goals, performance objectives, activities, and outcome measures. Unit activities include viewing films, listing 10 careers in science, applying for a job, and discussing the pros and cons of science careers. A list of materials (available in the Hanley Library) includes career cassette tapes, titles of books, and film titles. Additional suggested science-related activities and a career questionnaire are provided. The guide also includes 12 pages of career guidance publications listed alphabetically by career area, seven pages of alphabetically arranged addresses of resource organizations, and a three-page list of careers related to science and technology. (JR)

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ED107777

Seventh Grade Science

CAREER DEVELOPMENT PROJECT

U. City, Mo. School District

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ED107772

CAREER EDUCATION IN THE SEVENTH GRADE SCIENCE CLASS

June, 1972
Elaine A. Alexander
Hanley Junior High School

Self-Knowledge Domain

Goal: For students to become aware of their own personal aptitudes, abilities, and interests, and to compare these to characteristics required for careers related to science.

Performance Objectives:

A. Each student will explain in writing his own personal characteristics (aptitudes, abilities, interests) and will compare these to characteristics required for careers related to science, as demonstrated by a written statement.

Activities:

1. Each student will watch the film 'Your Job, Finding the Right One'.

2. Each student will write a follow-up paper of approximately one page discussing his own personal characteristics or traits and what type of careers he might be best suited for as a result of these traits.

Outcome Measure: Written paper

B. Each student will compare his career interests to one of five selected careers, as demonstrated by a written statement about why he would or would not choose the career.

Activities:

1. Each student will be asked to watch one of the following five films during his study hall on an elective basis: 'Oceanography, the Study of the Oceans', 'What Ecologists Do', 'Weathermen as a Scientist', 'Camera and Careers', and 'Excellence By Deisgn'.

2. After watching the film, each student would be asked to write a page reacting to the career portrayed in the film. Students would be asked to explain why they would or would not choose that particular career on the basis of the film.

Outcome Measure: Written paper

Career Preparation Knowledge and Skills Domain

Goal: For students to gain knowledge about careers related to science

Performance Objectives:

A. Each student will be able to list ten careers related to science.

Activities:

1. Each student will be given a short article dealing with some area of science from either a magazine or newspaper. Each student will be asked to list all of the careers that he can think of that are involved in the article, after he has read it. The list would include both careers of persons mentioned in the article as well as those responsible for the writing of the article.

2. Each student will be given a list of careers in science as taken from 'Keys to Careers in Science and Technology' put out by the National Science Teachers Association. The list will include a simple explanation of what each named career does. Students will be asked to read through the list. (List included in "Materials" section of this document.)

Outcome Measure: List of ten careers.

B. Each student will be able to explain briefly, in his own words, what a person who participates in each of the ten careers above does.

Activities:

1. Each student will be asked to pick one career from the list he has made while reading a science article. The student will be asked to tell the rest of the class what he thinks the duties of a person with that particular career would be.

2. Each student will be asked to make up a series of 20 questions which he thinks would be appropriate to ask a person who was involved in the science career of his choosing.

3. The student will then be asked to find someone who is involved in that career at the present time, make an appointment with that person for an interview, and actually carry out the interview with that individual. Students would be asked to turn in both questions and answers after the interview was completed.

4. Each student would be given a list of free publications which describe various careers in science and asked to write a letter requesting one publication dealing with the science career in

which he is most interested. After the publication has been received and read, each student would be asked to state what he learned about that particular career by reading the publication. (Lists of free publications and addresses of companies which provide the publications included in "Materials" section of this document.)

5. Each student would be asked to watch one of the following five films during his study hall on an elective basis: 'Oceanography, the Study of the Oceans', 'What Ecologists Do', "Weatherman, as a Scientist', 'Camera and Careers', and 'Excellence By Design'.

6. Each student will visit a botanical garden, planetarium, zoological garden, and chemical plant to find out what Scientists do. A botanist education specialist, an astronomer, keepers of the animal houses, and a chemist will talk about what they do throughout the day and show students as much of their particular 'work environment' as they are able to show.

7. Students will hear speakers from each of the following science careers, discuss their particular career:

   Teacher from School for Doctors Assistants and Technicians

   Computer Programmer

   Missouri Conservation Agent

   National Park Ranger

   Nurse

   Geologist

Outcome Measure: Written explanation of ten careers.

C. Each student will gain comprehensive knowledge about two careers, one of which must be related to science, as demonstrated by completion of questionnaires.

Activities:

1. Each student will be given a list of resource material in our school library and asked to choose one science career that he would like to find out more about. Each student will be asked to choose one cassette tape or book and listen to or read something about the career that he has chosen. (Lists of books and cassette tapes in the Hanley Junior High School library included in "Materials" section of this document.)

2. A questionnaire will be given to each student to be filled out as the tape is listened to or the book read. The questionnaire will include such items as educational requirements, approximate

salary, satisfactions of the career, etc. (Questionnaire included in "Materials" section of this document.)

3. Each student will be asked to listen to one tape discussing a career related to science and one tape of his choosing describing another career. The same questionnaire used in activity #2 above will be used by each student to summarize each of the listened to tapes. The list of tapes in the library would be marked so that students would know which careers related in some way to science and which ones did not.

Outcome Measure: Completion of questionnaires

D. Each student will select a career related to science about which he is sufficiently interested to obtain further information, as demonstrated by obtaining a free pamphlet and by discussing the pamphlet with the teacher.

Activities:

1. Each student will be given a list of free publications which describe various careers in science and asked to write a letter requesting one publication dealing with the science career in which he is most interested.

2. After the publication has been received and read, each student would be asked to state what he learned about that particular career by reading the publication. (List of free publications and addresses of companies which provide the publications included in "Materials" section of this document.)

E. Each student will be able to list at least five activities of persons who participate in selected careers related to science, as demonstrated by a written list or by an oral presentation.

Activities:

1. Students will watch the film 'How A Scientist Works' and then be asked to react to the film in an open discussion in terms of what specific personal traits a scientist must possess. Positive traits of the 'scientist' would be listed on the overhead projector as they are mentioned and then summarized at the end of the period.

2. Each student will visit a botanical garden, planetarium, zoological garden, and chemical plant to find out what scientists do. A botanist-educator, an astronomer, keepers of the animal houses, and a chemist will talk about what they do throughout the day and show students as much of their particular 'work environment' as they are able to show.

Outcome Measure: List of scientists' activities

Career Preparation Knowledge and Skills Domain

Goal: For students to gain knowledge about applying for a job.

Performance Objective:

A. Each student will gain knowledge about applying for a job, as demonstrated by a written statement explaining his preparation for a job interview and by completion of an application form.

1. Each student will watch the film 'Your Job, Applying For It' and be prepared to discuss the qualities which they believe a future employer would look for in them.

2. Each student would be asked to pretend that he was going to apply in person for a job the following day and to list all of the things that he would want to do and remember as he prepared to keep that date.

3. Each student would also be asked to fill out a typical application form and any problems which he might encounter would be solved in the classsituation.

Outcome Measure: Written statement and completion of application form.

Career Planning Domain

Goal: For students to experience a career planning activity.

Performance Objective:

A. Each student will become aware of the influence of the job market upon selection of a career, as demonstrated by a written statement discussing pros and cons of a career in science at the present time.

Activities:

1. Each student will be asked to read the newspaper article 'Hiring of Scientists Up Slightly' from the Post-Dispatch (6/15/72).

2. After having read the above article, each student will be asked to write a short paper discussing the pros and cons of a career in science at the present time. Each student will be asked to put himself in the place of someone who was interested in a career in science and weigh both sides of the issue.

Outcome Measure: Written statement

MATERIALS

Career Cassette Tapes in Hanley Library

CAS-GD-9	Career Development		Science careers are *
	Side I	Side II	
	* Electrician	* Dentist	
CAS-GD-10	Career Development		
	Side I	Side II	
	Fashion Model	Actor	
CAS-GD-11	Career Development		
	Side I	Side II	
	* Stewardess	Buyer	
CAS-GD-12	Career Development		
	Side I	Side II	
	* Police Woman	* Dental Hygienist	
CAS-GD-13	Career Development		
	Side I	Side II	
	* Computer Programmer	* Veterinarian	
CAS-GD-14	Career Development		
	Side I	Side II	
	Account Executive	Radio Broadcaster	
CAS-GD-15	Career Development		
	Side I	Side II	
	Business Consultant	Salesman	
CAS-GD-16	Career Development		
	Side I	Side II	
	Minister	Personnel Counselor	
CAS-GD-17	Career Development		
	Side I	Side II	
	* Research Scientist	* Pharmacist	
CAS-GD-18	Career Development		
	Side I	Side II	
	High School Teacher	* Technical Writer	
CAS-GD-19	Career Development		
	Side I	Side II	
	Court Reporter	Telephone Operator	

Career Cassette Tapes in Hanley Library (continued)

CAS-GD-20	Career Development	
	Side I *Physician	SideII * Dietician
CAS-GD-21	Career Development	
	Side I * Medical Technologist	Side II * Physical Therapist
CAS-GD-22	Career Development	
	Side I * Commercial Pilot	Side II Professor
CAS-GD-23	Career Development	
	Side I Banker	Side II Cost Analyst
CAS-GD-24	Career Development	
	Side I Editor	Side II Librarian
CAS-GD-25	Career Development	
	Side I Commercial Artist	Side II Theatrical Agent
CAS-GD-26	Career Development	
	Side I Secretary	Side II Social Worker
CAS-GD-27	Career Development	
	Side I * Park Director	Side II Reporter
CAS-GD-28	Career Development	
	Side I Cosmetologist	Side II * Nurse
CAS-GD-29	Career Development	
	Side I * Forester	Side II Military Personnel
CAS-GD-30	Career Development	
	Side I Lawyer	Side II *Architect

Career Cassette Tapes in Manley Library (continued)

CAS-GD-31	Career Development	
	Side I Waiter/Restaurant Manager	Side II Stockbroker
CAS-GD-32	Career Development	
	Side I * Electronic Assembler	Side II * Auto Mechanic
CAS-GD-33	Career Development	
	Side I Record Producer	Side II * Photographer
CAS-GD-34	Career Development	
	Side I Teaching Assistant	Side II * Tool and Die Maker
CAS-GD-35	Career Development	
	Side I Golf Professional	Side II * Fireman
CAS-GD-36	Career Development	
	Side I Accountant	Side II Insurance Salesman
CAS-GD-37	Career Development	
	Side I * Civil Engineer	Side II * Electronic Technician
CAS-GD-38	Career Development	
	Side I Realtor	Side II Driver/Salesman

Career References in Hanley Library

GENERAL SOURCES

R 371.42 H77 v. 1-2 — Hopke, William E. The Encyclopedia of Careers and Vocational Guidance. Garden City, New York, Doubleday, c. 1967.

016.331 F — Forrester, Gertrude. Occupational Literature, New York, Wilson, c. 1964.

016.37 N42 — Career Information Service, New York Life Insurance Co. Guide to Career Information. New York, Harper, c. 1957.

ENCYCLOPEDIAS

R 030 c69 v. 12 — Collier's Encyclopedia, vol. 12, New York, Crowel-Collier, c. 1969, pages 758-767 (listed under Industrial Relations).

R 030 C73 v. 23 — Compton's Encyclopedia, vol. 23, Chicago, Compton, c. 1969 pages 359-376 (listed under vocations).

R 030 K76 v. 19 — New Book of Knowledge, vol. 19, New York, Grolier, c. 1969 pages 373-374 (listed under vocational guidance and counseling).

R 030 W89 v. 19 — The World Book Encyclopedia, vol. 19, Chicago, Field, c. 1969, pages 340-355 (listed under vocational guidance).

COLLEGE

371.8 En3 — Engeman, Jack. College: The Life of a Student. New York, Lothrop, Lee and Shepard, c. 1959.

371.42 S — Splaver, Sarah. Your Career If You're Not Going to College. New York, Messner, c. 1963.

CAREER BOOKS

Anthropologist

570.23 M — Mead, Margaret. Anthropologists and What They Do. New York, Watts, c. 1965.

Architect

331.7 M22 — McLaughlin, Robert W. Architect: Creating Man's Environment. New York, Macmillan, c. 1962

Farmer

630 B46 — Bothers, Ray. Perhaps I'll Be a Farmer. New York, Aladdin, c. 1950.

Forester (Conservationist)

634.9 H — Hanaburgh, David H. Your Future in Forestry. New York, Rosen, c. 1961.

333.7 N25 — Neal, Harry Edward. Nature's Guardians. New York, Messner, c. 1956.

Home Economist

640 Sp3 — Spencer, Lila. Exciting Careers for Home Economists. New York, Messner, c. 1967.

Industrial Worker

371.42 G89 — Groneman, Chris H. Exploring the Industries. Austin, Texas, Steck, c. 1962.

331.86 K96 — Kursh, Harry. Apprenticeships in America. New York, Norton, c. 1965.

Law Enforcement Officer

350.74 C88 — Crump, Irving. Our State Police. New York, Dodd, Mead, c. 1955.

327 D88 — Dulles, Allen. The Craft of Intelligence. Evanston, Indiana, Harper, c. 1963.

351.7 R17 — Ransom, Harry Howe, Central Intelligence and National Security. Cambridge, Mass., Harvard University Press, c. 1958.

Military Service

355.2 H26 — Harwood, Michael. The Student's Guide to Military Service. New York, Appleton-Century, c. 1965.

355.3 Sch8 — Schuon, Karl and Ronald D. Lyons. Servicewomen and What They Do. New York, Watts, c. 1964.

355.1 D26 — Daugherty, Charles M. The Army from Civilian to Soldier. New Viking, c. 1957.

Career References in Hanley Library (continued)

359.907 C — Crump, Irving. Our United States Coast Guard Academy. New York, Dodd, Mead, c. 1961.

359.9 P28 — Paxton, Glenn. The Coast Guard from Civilian to Coast Guardsman. New York, Viking, c. 1958.

359.9 D71 — Donovan, James. A. The United States Marine Corps. New York, Praeger, c. 1967.

359.9 H18 — Hammond, Cleon E., The Marine Corps. New York, Viking, c. 1962.

359.07 R44 — Riesenberg, Felix, Jr. The Story of the Naval Academy. Eau Wisconsin, Hale, c. 1958.

359 R54 — Robertson, Keith. The Navy from Civilian to Sailor. New York, Viking, c. 1958.

Medicine

610.69 N25 — Neal, Harry Edward. Disease Detectives. New York, Messner, c. 1968.

610.69 N — Nourse, Alan E. So You Want to Be a Doctor. Indiana, Harper, c. 1957.

610.69 L51 — Lee, Russel V., Sara Eimerl and the Editors of LIfe. The Physician New York, Time, c. 1967.

Pilot

629.13 Scr6 — Scribner, Kimball J. Your Future as a Pilot. New York, Rosen, c. 1968.

Scientist (Practical and Pure)

530.023 B41 — Bell, Raymond M. Your Future in Physics. New York, Rosen, c. 1967.

551.5 B — Berry, Frederic and Sidney R. Frank. Your Future in Meteorology. New Yrok, Rosen, c. 1962.

551.4 G11 — Gaber, Norman H. Your Future in Oceanography. New York, Rosen, c. 1967.

551.4 K84 — Kovalik, Vladimir and Nada. The Ocean World. New York, Holiday, c. 1966.

506.9 N85 — Nourse, Alan E. So You Want to be a Scientist. New York, Harper, c. 1960.

530.69 N85 — Nourse, Alan E. So You Want to be a Physicist. New York, Harper, c. 1963.

651.8 Sel4 — Seligsohn, I.J. Your Career in Computer Programming. New York, Messner, c. 1967.

539.7 T — Thompson, William E., Jr. Your Future in Nuclear Energy Fields, New York, Rosen, c. 1961.

620.023 W — Wachs, Theodore, Jr. Careers in Engineering. New York, Walck, c. 1964.

551.023 W — Weitz, Joseph L. Your Future in Geology. New York, Rosen, c. 1966.

Stewardess

387.7 En3 — Engeman, Jack. Airline Stewardess. Lothrop, Lee and Shepherd, c. 1960.

Teacher

Cushman, Jack. Young Man's View of the Teaching Profession American National Red Cross, c. 1961.

Green, John A. Fields of Teaching and Educational Services. New York, Harper, c. 1966.

Veterinarian

636.089 R — Riser, Wayne H. Your Future in Veterinary Medicine. New York, Rosen, c. 1963.

Films to be Shown During Science Careers Study

"How A Scientist Works"

"Your Job, Finding the Right One"

"Your Job, Applying for It"

"Oceanography, the Study of the Oceans"

"What Ecologists Do"

"Weatherman As A Scientist"

"Camera and Careers"

"Excellence By Design" (from McDonnell Aircraft Corporation)

Note: All of the above films can be obtained from the County Film Library with the exception of "Excellence By Design".

Student Activities for Science Careers Curriculum

1. Each of you will be given a short article dealing with some area of science (from either magazine or newspaper). You will be allowed to choose an article which is of interest to you if possible. Each of you will be asked to list all of the careers that you can think of that are involved in the article after reading it. Your list should include both careers of persons discussed in the article as well as those of persons responsible for writing the article. You will be asked to pick one career from your list and tell others in your class what you think that person does. In other words, in a circle discussion, you will be asked to tell us what a person who has that particular career does in his job.

2. The film 'How a Scientist Works' describes how a wildlife scientist in Northern Montana solves a problem which has to do with managing a population of geese. You will be asked to react to the film in an open discussion, in terms of what specific personal traits a scientist must possess. Positive traits of the 'scientist' will be listed on the overhead projector as they are mentioned and then summarized at the end of the period.

3. You will be given a list of 'careers in science' and asked to choose one career that you would like to find out more about. You will also be given 2 lists of resource material in our Hanley library (career books and cassette tapes). You will be asked to choose one tape or book (if tape is not available) and find out more about the particular career that you have chosen. Each of you will be asked to fill out a questionnaire including many of the points made on the tape or in the book. The questionnaire will include items such as job responsibilities, educational requirements, etc.

4. You will be asked to listen to one tape about a career related to science and one tape about any other career you might choose. The same questionnaire used in #3 will also be used to summarize the two tapes. The list of tapes in the library is marked so that you will know which careers are related in some way to science and which are not. If you listened to a tape for #3 above, then you may use that questionnaire to fulfill the first part of #4.

5. You will be asked to make up a series of 20 questions which you would think appropriate to ask a person who is involved in the science career of your own choosing. You will be able to pick whatever career you would like to interview. Then you will be asked to find someone who is involved in that career at the present time, make an appointment with that person for an interview, and then actually carry out the interview with that individual. Both questions and answers will be turned in after the interview.

6. You will be asked to read the newspaper article 'Hiring of Scientists Up Slightly' from the Post-Dispatch (6/15/72). After having read the article, you will be asked to write a short paper discussing the pros and cons of a career in science at the present time. Put yourself in the place of

a person interested in some area of science as a career and discuss your feeling about your future possibilities.

7. You will be given a list of free publications available which describe various careers in science and asked to write a letter requesting one publication dealing with the area in which you are most interested. After you have received and read the publication, I will ask each of you what you learned by reading it.

8. You will watch the film 'Your Job, Finding the Right One' and write a follow-up paper (of approximately one page) discussing your own personal characteristics or traits and what types of careers you might be best suited for as a result of these characteristics.

9. Each of you will watch the film 'Your Job, Applying For It' and be prepared to discuss the qualities which you think a future employer would look for in you. Pretend you are going to apply in person for a job tomorrow and list all of the things that you would want to do and remember as you prepared to keep that date. You will be asked to fill out a typical application form for a job and any problems which you have will be discussed and solved in class so that by the end of the period you should be able to fill out the form without much problem.

10. Several films from County AV manage to tell the story of their particular profession clearly and in an up-to-date manner. Each of you will be asked to watch one of the following five films during your study hall on an elective basis. The films are: 'Oceanography, the Study of the Oceans', 'What Ecologists Do', 'Weatherman as a Scientist', 'Camera and Careers', and 'Excellence By Design' (from McDonnell Air-Craft Corporation). After watching the film you will be asked to write a page reacting to the career portrayed in the film either favorably or unfavorably giving reasons for your choosing or not choosing that career.

11. Trips have been planned to the Arboretum, Planetarium, Zoo, and a Chemical Plant to listen to and see what scientists do. A botanist-education specialist from the Arboretum, an astronomer from the planetarium, keepers of the aquatic house and lion house at the zoo, and a chemist at the chemical plant will talk about what they do and show you as much of their particular 'work environment' as they are able to show.

12. The following areas will be covered by speakers who will come to the school to talk about their particular career:

    Teacher from Mo. School for Dr. Assistants and Technicians

    Computer programmer

    Missouri conservation agent

    National Park Ranger

    Nurse

    Geologist

Career Questionnaire

Answer as many of the following questions as you are able to answer while you are listening to the tape or reading a resource book from the library.

1. Name of the career that you are interested in finding out more about? _____

2. What types of jobs are available in this career area? _____

3. What type of training or education must one have in order to enter this type of career? _____

4. Must you pass a state exam in order to obtain a job in this career area? _____

5. What personal qualities or traits would be an asset to an individual who was considering this career? _____

6. What would the working hours be of a person with a job in this career area? _____

7. What sort of working environment would a person with this career have? (outdoors, indoor desk job, etc.) _____

8. What types of duties or responsibilities would a person with this career need to fulfill? _____

9. What do persons who are now working in this career say about the most exciting or satisfying part of their job? What are the rewards of this career? _____

10. What are some of the drawbacks or hazzards to this particular career? _____

11. What type of equipment would a person in this career be using as a part of the job? _____

12. What would the approximate starting salary be in this career? _____

13. Could a person engaged in this career expect to receive regular salary increases? _____

14. Are jobs in this career area hard to get or are there many openings available at the present time? _____ Will this change in the next ten years? _____

15. Now that you have found out more about this career, are you still interested in it as a future possible career choice? _____

A GRADUATE SCIENCE STUDENT at Washington University getting personal instruction from his professor. Enrollment in science courses has declined at most of the nation's colleges. (Post-Dispatch Photo)

Hiring Of Scientists Up Slightly

By WILLIAM K. WYANT JR.
A Washington Correspondent of the Post-Dispatch

WASHINGTON, June 15

THE GLORIOUS DAYS of multiple job offers for young scientists are gone, but this will not discourage the really good ones, National Science Foundation Director H. Guyford Stever said today.

"I think the recovery of our economy will ease employment," he said in an interview, "but I don't see any time in the near future when the overabundance of jobs for PhDs will recur."

Stever, 55 years old, former president of Carnegie-Mellon University, referred to the constantly escalating demand for scientists that followed World War II and the post-Sputnik "international race in education."

The wellsprings of money for science are not gushing as abundantly now.

Stever, although not pessimistic, said he did not think the hiring of scientists for academic jobs would increase at a rapid rate in the next few years. He mentioned the financial troubles of colleges and universities.

"I PERSONALLY THINK we will work ourselves out of this problem," he said. "However, I would not want to pour kerosene on the production fires of PhDs in science at the present time."

The magazine Science, published by the American Association for the Advancement of Science, reported in April that the job outlook for fledgling scientists and engineers this June was better than last year but "nothing to do handsprings about."

Chemistry and physics were described as the hardest-hit group. Some physicists were said to have given up the idea of getting a post at a college or university. To an unusual degree they were turning to industry and other types of professional fulfillment.

There has been a decline in enrollments in physics, chemistry and engineering courses. Meanwhile, the pressure for entry into medicine, where a graduate has no trouble finding work, has increased greatly.

THE ASSOCIATION of American Medical Colleges said that one decade ago 15,847 students had applied for 8642 seats at medical schools. In 1972-73, the figure was 35,000 applications for 12,900 seats.

The National Science Foundation, set up by Congress in 1950, is the major instrument for federal support of basic scientific research. In recent years it has been under political pressure to apply scientific knowledge to problem-solving in a way related to achievement of national goals.

For the fiscal year beginning July 1, the foundation is seeking $653,000,000 from Congress, compared with $622,000,000 appropriated for this year. Most of that money will go to the universities for basic research involving 7400 faculty scientists and 7000 graduate science students.

The 1973 budget includes also $80,000,000 for a program called "Research Applied to National Needs." This

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Scientists' Job Shift

☐ FROM PAGE ONE

work is aimed at applying scientific and engineering talent to problems of national concern.

While increasing its support for students working on research projects, the foundation has been dropping its support for graduate students in the form of traineeships and cutting down its fellowship program.

"THERE ARE TWO REASONS for the dropoff in fellowship and trainee support," Stever said in a speech last month.

"One of these is that many people in government question why science should be singled out from all the other professions and fields for major student support.

"And the other reason is the unemployment and underemployment of scientists. Some ask why we should continue and aggravate the problem by training more scientists."

Among society's newly defined goals, Stever said, could be counted such things as cleaning the environment, stopping the waste of resources, curbing pollution, and improving housing, transportation, education, health care and the like.

STEVER SAID LAW and medicine, like science, were becoming more popular as chosen fields of endeavor because they were professions. They are fields in which a person can be his own boss, and not just part of an organization, he said.

In the interview, he was sympathetic to the problems of higher education as the colleges and universities encounter inflation, a leveling off of financial support, rising costs and a decline in the old confidence that higher education has the answers.

"You have had a dropping away of universal desire and acceptance," he said. "Inflation, rising costs, and a drop in endowments.

"THE STEEL INDUSTRY and the university industry can be compared, in terms of the problems they have."

Stever received a doctorate in physics at California Institute of Technology. He served on the faculty of Massachusetts Institute of Technology for more than 20 years. He became president of Carnegie Institute of Technology at Pittsburgh in 1965. Carnegie Tech merged with Mellon Institute in 1967, forming a university with a total endowment of nearly $120,000,000.

In the mid-1950s, Stever was chief scientist of the Air Force. He is considered an expert on aeronautical engineering and space technology. He has served as a director of United Aircraft Corp., Koppers Co. Inc., and Fisher Scientific Co.

There is nothing in Stever's background to suggest that he is not enthusiastic about applying scientific knowledge to the everyday problems of man.

CAREER GUIDANCE PUBLICATIONS

GENERAL

The Big Pond - Federal Jobs for Engineers, Physical Scientists, and Mathematicians -

Civil Service Commission

The stories of several individuals who are working for the federal government in these fields.

Can I Be a Scientist? - Public Relations Staff, General Motors Corporation

Considerations of a scientific career, background required, and opportunities.

Careers in Science - National Bureau of Standards

Trained specialists conduct pure and applied research in the fields of physics, mathematics, chemistry, and engineering at the laboratories of this government installation. 1969. 30 pp.

Careers in Science and Engineering - Civil Service Commission

Basic information for people desiring jobs in these fields with the Federal government.

Science and Engineering - International Bussiness Machines Corporation

Outlines career opportunities for engineers, scientists, mathematicians, physicists, programmers, chemists, and metallurgists. Includes sections relating to IBM company products, benefits, and working environment.

AGRICULTURE

Choose a Challenging and Rewarding Career in the U.S. Department of Agriculture -

Office of Information, U.S. Department of Agriculture

Facts on opportunities in the Department of Agriculture.

Rewarding Careers in a Dynamic Industry - National Association of State Universities and Land-Grant Colleges

The booklet describes careers in farming and related fields. Available from the Dean of Agriculture at land-grant institutions in student's home state. 22 pp.

Threads of Life - The National Academy of Sciences, Agricultural Board

Particularly emphasizes the agricultural sciences. Request from agricultural departments of colleges. 1964. 16 pp.

AGRICULTURE (continued)

Agricultural Engineering and You - American Society of Agricultural Engineers

Facts about careers in this field, and how one prepares for the profession. 16 pp.

Opportunities for You in the Florist Industry - Society of American Florists, Executive Director

Career opportunities in floriculture. 12 pp.

ANTHROPOLOGY AND ARCHAEOLOGY

Anthropology as a Career - Smithsonian Institution

Pamphlet divided into five parts: areas of anthropology, training, employment, universities, and a reading list in general anthropology and in each of the several fields. Revised. 20 pp.

Archaeology As a Career - Archaeological Institute of America

J.H. Rowe describes the work and training of the archaeologist. Bibliography revised in 1970. 11 pp. Quantity prices on request.

ARCHITECTURE

Designing a Better Tomorrow - American Institute of Architects

The challenges and rewards of a career in this field. Lists accredited schools of architecture and further references.

ASTRONOMY

A Career in Astronomy - American Astronomical Society

Gives information on the nature of work involved in contemporary astronomy, the schools having training in this area, and employment opportunities.

ATOMIC ENERGY

Careers in Atomic Energy - U.S. Atomic Energy Commission

The various fields of the atomic scientist. Also contains a selected reading list on sources of financial aid to the student. 27 pp.

AVIATION AND SPACE SCIENCE

Career Opportunities with the Airlines - Air Transport Association of America

Various career openings with the airlines; basic requirements, personal and educational; salaries; ways to apply for an airline job.

Educational Opportunities in the Air Force - Local U.S. Air Force Recruiting Offices

A booklet describing educational opportunities open to members of the Air Force.

Occuaptional Handbook of the United States Air Force - Local Air Force Recruiting Offices

A vocational manual for guidance counselors and educators, furnishing information on aviator career fields and opportunities for young men and women in the U.S. Air Force. 44 pp. Also available, Your Son's Air Force Life.

Pocket Guide to Air Force Opportunities - Local U.S. Air Force Recruiting Offices

A pocket-size summary of U.S. Air Force training courses and job specifications with emphasis on technical training courses and job opportunities. 81 pp.

Your Career as an Aerospace Engineer - American Institute of Aeronautics and Astronautics

Aerospace engineers design and build equipment used in space exploration and more earthbound transportation. Includes a list of schools where programs in aerospace engineering are offered. 21 pp. (Student memberships in AIAA are available too.)

BIOLOGICAL SCIENCES

Career Guidance Booklet - American Society of Zoologists

"Careers in Animal Biology," outlining career opportunities in teaching, research, museum work, work with government agencies, etc.

Careers in Biology - Rochester Institute of Technology

Describes the varied professions in the life sciences, including the prospective salaries and educational preparation. 24 pp.

Fisheries as a Profession - American Fisheries Society

A career guide for the field of fisheries science.

BIOLOGICAL SCIENCES (continued)

Microbiologist - Food and Drug Administration

Possibilities of assignments with this government agency are described in this booklet. 8 pp.

CHEMISTRY

Chemist - Food and Drug Administration

Some assignments chemists may have in careers with this government agency. 8 pp.

Chemistry Guidance Leaflet - University of Missouri at Rolla

Pamphlet describing careers and requirements in chemistry.

Chemistry and Your Career - American Chemical Society

A booklet designed to help students at the junior high school level visualize how chemistry affects careers in many areas. Describes the training and background necessary for a career in chemistry. 1969. 20 pp. Single copies free.

A Dozen Reasons Why Young People Choose Chemical Industry Careers - Manufacturing Chemists Association, Inc.

4-page flyer.

CONSERVATION

Careers in Conservation - Soil Conservation Society of America

If you like to work outdoors and are interested in serving the needs of our country, this may be the career for you. 12 pp.

Careers in the National Park Service - National Park Service

Describes the major programs and employment needs of the Park Service, and answers many questions on procedures to follow in applying. 1968. 31 pp.

Careers for Women in Conservation - U.S. Department of Labor, Women's Bureau

The wide range of careers that are available in this field. 1969.

Careers in Wildlife Conservation and Management - Wildlife Management Institute

What is involved in wildlife management, required training, and other facts about this career.

A Wildlife Conservation Career for You - The Wildlife Society

The wide range of rewarding careers in this field is described in this pamphlet, which also lists sources of further information.

DENTISTRY

Careers in Dental Hygiene - American Dental Hygienists' Association

Brochure presenting the facts concerning career opportunities, examination and licensure, and sources of further information.

Careers in Dentistry - American Dental Association

Facts a future dentist needs to know when considering choosing dentistry as a career. Also available, Dental Students' Register which gives information on enrollment and requirements of dentistry, dental hygiene, dental assistantship, and dental laboratory schools. 19 pp.

Dental Assisting is an Action Career - American Dental Assistants Association

The functions and activities of this career are outlined.

Dental Hygiene...A Career with a Future - American Dental Hygienists' Association

Short brochure describing the profession of dental hygiene.

DIETETICS AND NUTRITION

Careers in Nutrition - American Institute of Nutrition

Discusses briefly the preparation for a career in nutrition and the many applications of the "science of food."

ELECTRONIC DATA PROCESSING - COMPUTER SCIENCE

Analytically Minded? - International Business Machines Corporation

Outlines job opportunities in systems engineering with emphasis on IBM. 32 pp.

Computer Science at State Universities and Land-Grant Colleges - National Association of State Universities and Land-Grant Colleges

This publication provides a brief overview of activities in computer science at state universities and land-grant institutions. It includes information about career and study opportunities in the computer field. 1967. 22 pp.

The Programmers - International Business Machines Corporation

Provides a concise description of programming, what a programmer does, and how he accomplishes this task in the two main areas of applications and systems. IBM locations are outlined, as well as educational requirements and IBM company benefits.

ENGINEERING

Can I Be an Engineer? - Public Relations Staff, General Motors Corporation

An outline of what engineers do, precollege courses, and the opportunities for engineering graduates. 19 pp.

Careers in Engineering - Purdue University, Office of the Dean of Engineering

A booklet that tells what engineering is and what engineers do. It describes the profession of engineering and the qualifications and educational requirements of a successful engineer. It is aimed at providing sufficient information so that one can decide for himself whether he wants to prepare for a career in engineering, including what should be studied in high school and the various options one has in college.

Does Engineering Appeal to You? - American Society for Metals

A brief introduction to metallurgical engineering and its expanding opportunities. Free in quantities for high school students.

Engineering and Applied Science - Columbia University School of Engineering and Applied Science

This booklet describes the program at Columbia University and provides much information about careers in engineering and applied science.

Engineering: A Career of Opportunity - National Society of Professional Engineers

Helps students develop and answer questions about their interest in, and fitness for, a career in engineering. 14 pp.

Engineering: Creating a Better World - Engineers' Council for Professional Development

Answers such questions as: What is an engineer? What does an engineer do? Who can become an engineer? 20 pp.

Why Not Be an Engineer? - U.S. Department of Labor, Women's Bureau

Information about the opportunities in this field for women.

FORESTRY

Ask Any Forester - Society of American Foresters

Describes the rewards and opportunities of a career in the forestry profession. 15 pp.

FORESTRY (continued)

Career Opportunities in the Nursery Industry - American Association of Nurserymen

Gives information on the nature of the work, career opportunities, types of operations and schools and curriculum. Enclose a stamped, self-addressed envelope with your request.

A Job with the Forest Service - U.S. Department of Agriculture, Forest Service

A pamphlet describing non-professional employment possibilities in the U.S. Forest Service. 1970.

GEOLOGICAL SCIENCES

Geology-Earth Science - University of Missouri-Rolla

The program at this school is featured in this description of careers in geology.

Geophysics - University of Missouri-Rolla

Careers in the field of geophysics, with emphasis on the curriculum at this school.

HOME ECONOMICS

Careers in Home Economics - American Home Economics Association

Miscellaneous career booklets on home economics, including careers in nutrition and textiles. Special series of pamphlets "The Wonderful World of Home Economics."

INDUSTRIAL

American Paper Institute - What's So Special About Paper?

Outlines the various types of job possibilities in the paper industry and lists some scholarships available. Also lists colleges giving specialized training in papermaking.

General Motors Corporation - Can I Be a Craftsman?

General Motors program for developing skilled craftsmen. 21 pp.

General Motors Corporation - Can I Be a Draftsman?

A description of opportunities for draftsmen and preparation for employment. 13 pp.

International Business Machines Corporation - The Problem Solvers

Outlines job opportunities in business administration, engineering, system engineering, customer engineering, science, marketing, programming,

research, and finance, as well as general information about IBM.

MATHEMATICS

Careers in Mathematics - Rochester Institute of Technology

Describes the several fields and professional opportunities for the mathematics major. 1969. 20 pp.

Careers in Statistics - American Statistical Association

Brochure designed to provide information about statistical careers for students, teachers, guidance counselors, and educational organizations. Gives detailed description of meaning of statistics, work of statisticians, kind of education needed, and salary information. 23 pp. Limited quantities. Second edition. 1963.

How About a Career with Mathematics - The Mathematical Association of America

If you like math, you'll be interested in the many ways you can make a career of it. 1965. 8 pp.

MEDICINE AND HEALTH

The Opportunities and Rewards of Medicine Can Be Yours - American Medical Association

Medicine promises a future to students of various talents. There is room in the profession for almost every type of interest and study including athletics, education, and astronautics. 8 pp.

Decision for Research - American Heart Association

Discusses meaning of research, training needed to work in the field, and work at a research center after college. 8 pp. Request from the local chapter of the Heart Association.

Why Not Be a Medical Technologist? - U.S. Department of Labor, Women's Bureau

What medical technologists do and what to expect from this career.

Your Career Opportunities in Medicine - Charles Pfizer & Company, Inc., Educational Services Department

Provides information on careers in medicine, educational requirements, and a list of medical schools in the United States. 31 pp.

Do You Want to Be a Nurse? - National League for Nursing

Preparation and career opportunities in nursing.

Why Not Be an Optometrist? - U.S. Department of Labor, Women's Bureau

What optometrists do and what to expect from this career.

The Career for You - Physical Therapy - American Physical Therapy Association

The satisfactions of a career in this profession. Career Facts, also available, describes the physical therapist's job and requirements.

Consider Physiology - The American Physiological Society

Answers the question "What is a physiologist?" and discusses the advantages and challenges of working in this field.

Careers in X-Ray Technology - The American Society of Radiologic Technologists

Discusses the need for radiologic technologists. Reviews the training required and the duties one might encounter in this career.

Health Education as Your Career - American Association for Health, Physical Education and Recreation

Pamphlet discusses opportunities in health education, the work, salary, courses of study at college, advantages of such a career.

Today's Hospital - Career Center for America's Youth - American Hospital Association

Career opportunities in hospitals, the types of people needed, educational requirements. 1970. 8 pp.

Your Career Opportunities in Hospitals - Charles Pfizer & Company, inc., Educational Services Department

Career information for those interested in applying for the various hospital jobs not held by physicians. 35 pp.

METEOROLOGY

Career Guidance and Educational Material on Meteorology - American Meteorological Society

Literature on careers in meteorology as the science of the atmosphere. Material includes career booklet The Challenge of Meteorology, listing of colleges having degree programs in meteorology, and a selective bibliography on meteorology and teaching aids.

MINING

Going Places in Oil - American Petroleum Institute

Sixteen young men and women in their twenties who hold key jobs in the petroleum industry discuss their work and the way they feel about it. Some of the industry's many different job classifications are included, as well as brief descriptions of the main divisions of the industry. 24 pp. One per student; limited quantities for guidance counselors or teachers.

Penetrating New Frontiers with Minerals Engineers - Society of Mining Engineers of AIME

Geologists, mining engineers, and metallurgists have a variety of careers in this field.

OCEANOGRAPHY

Careers in Oceanography - U.S. Naval Oceanographic Office

A short description of the many areas of oceanography that are open to qualified persons. 1965. 8pp.

PHARMACY

A Career in Pharmacology - American Society for Pharmacology and Experimental therapeutics

Information on such subjects as: What is pharmacology, what does pharmacology offer, and how to enter this profession.

See Your Future in Pharmacy - American Pharmaceutical Association

Pamphlet discusses pharmacy in general, personal qualifications of a pharmacist, education, licensing and registration, opportunities in the various areas of pharmacy, and gives a list of accredited colleges of pharmacy. 16 pp.

What Is a Pharmacist? - Upjohn Company

Emphasizes careers in the pharmaceutical industry for people with degrees in pharmacy or related sciences.

Why Not Be a Pharmacist? - U.S. Department of Labor, Women's Bureau

What pharmacists do and what to expect from this career.

PHOTOGRAPHY

Photography in Your Future - Eastman Kodak Company

This booklet discusses photography's important role in today's way of

life and the serious consideration it deserves by all young people planning for the future.

PHYSICS

Physics as a Career - American Institute of Physics

Discusses physics as a science and as a profession, physicists in industry, teaching, and the federal government; the training of the physicist, and physics organizations and publications. 1970. 20 pp. Slight cost for 10 or more copies.

RADIO AND ELECTRONICS

The Electronics Sercice Technician - Futures Unlimited - Electronic Industries Association

Career possibilities in radio and television service. Also available: Routes Into the Future, a list of schools offering consumer electronics servicing courses. 1970.

How to Choose a Career in Electronics - Bell & Howell Schools

Discussion of career opportunities in a wide variety of electronics fields; outline of growing demand for technicians and available areas of specialization. 1970. 36 pp.

TEACHING

A Career for You as a Science Teacher - National Science Teachers Association

Booklet discusses the rewards and challenges of science teaching, the preparation required, and the advantages of such a career. Also lists sources of further information. 1966. 24 pp.

Mathematics Teaching as a Career - National Council of Teachers of Mathematics

A leaflet discussing the questions which students ask about careers in teaching mathematics. 8 pp.

TECHNICAL WRITING

Technical Writing as a Career - Society of Technical Writers and Publishers

Deals with the following questions: Why be a technical writer? How big is the field? What are the salaries? Where is technical writing done?

TECHNICAL WRITING (continued)

What kind of education is needed? What is the future of technical writing? 13 pp.

Why Not Be a Technical Writer? - U.S. Department of Labor, Women's Bureau

Information about the opportunities in this career area.

VETERINARY MEDICINE

Career Facts about Veterinary Medicine - American Veterinary Medical Association

Answers these questions: What does the veterinarian do? What training is available? What qualifications are needed?

Today's Veterinarian - American Veterinary Medical Association

Qualities needed by a person who enters this profession, and a list of colleges which have this curriculum.

ADDRESSES

Air Transport Association of America
1000 Connecticut Ave., N.W.
Washington, DC 20036

American Anthropological Association
1703 New Hampshire Ave., N.W.
Washington, DC 20009

American Association for the
Advancement of Science
1515 Massachusetts Ave., N.W.
Washington, DC 20005

American Association for Health, Physical
Education and Recreation*
1201 16th St., N.W.
Washington, DC 20036

American Association of Museums
2306 Massachusetts Ave., N.W.
Washington, DC 20008

American Association of Nurserymen
835 Southern Building
Washington, DC 20005

American Astronomical Society
211 FitzRandolph Rd.
Princeton, NJ 08540

American Chemical Society
Education Office
1155 16th St., N.W.
Washington, DC 20036

American Chiropractic Association
Department of Education
2200 Grand Ave.
Des Moines, IA 50312

American Dental Assistants Association
211 E. Chicago Ave.
Chicago, IL. 60611

American Dental Hygienists' Association
211 E. Chicago Ave.
Chicago, IL. 60611

American Dental Association
Council on Dental Education
211 E. Chicago Ave.
Chicago, IL. 60611

American Dietetic Association
620 N. Michigan Ave.
Chicago, IL. 60611

American Fisheries Society
Suite 1040, Washington Building
15th and New York Ave., N.W.
Washington, DC 20005

American Forestry Association
919 17th St., N.W.
Washington, DC 20006

American Geological iNstitute
2201 M St., N.W.
Washington, DC 20037

American Home Economics
Association
1600 20th St., N.W.
Washington, DC 20009

American Hospital Association
840 N. Lake Shore Drive
Chicago, IL. 60611

American Institute of
Aeronautics and Astronautics
1290 Sixth Ave.
New York, NY 10019

American Institute of Architects
1735 New York Ave., N.W.
Washington, DC 20006

American Institute of Nutrition
9650 Rockville Pike
Bethesda, MD 20014

American Institute of Physics
335 E. 45th St.
New York, NY 10017

American Legion
Box 1055
Indianapolis, IN 46206

American Medical Association
535 N. Deaborn St.
Chicago, IL. 60610

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American Meteorological Society
45 Beacon St.
Boston, MA 02108

American Optometric Association, Inc.
7000 Chippewa St.
St. Louis, MO. 63119

American Orthotic and Prosthetic Association
1440 N St., N.W.
Washington, DC 20005

American Paper Institute
260 Madison Ave.
New York, NY 10016

American Personnel and Guidance Association
1607 New Hampshire Ave., N.W.
Washington, DC 20009

American Public Health Association, Inc.
Book Service
1740 Broadway
New York, NY 10019

American Osteopathic Association
212 E. Ohio St.
Chicago, IL. 60611

American Petroleum Institute
1271 Avenue of the Americas
New York, NY 10020

American Pharmaceutical Association
2215 Constitution Ave., N.W.
Washington, DC 20037

American Physical Therapy Association
1156 15th St., N.W.
Washington, DC 20005

American Physiological Society
9650 Rockville Pike
Bethesda, MD 20014

American Podiatry Association
20 Chevy Chase Circle
Washington, DC 20015

American Society for Engineering Education
Suite 400
One Dupont Circle
Washington, DC 20036

American Society for Metals
Metals Park, OH 44073

American Society for Microbiology
1913 Eye St., N.W.
Washington, DC 20006

American Society for Pharmacology and Experimental Therapeutics
9650 Rockville Pike
Bethesda, MD 20014

American Society of Agricultural Engineers
Box 229
Saint Joseph, MI 49085

American Society of Plant Physiologists
Box 5706
Washington, DC 20014

American Society of Radiologic Technologists
645 N. Michigan Ave.
Chicago, IL. 60611

American Society of Range Management
Executive Secretary
2120 S. Birch St.
Denver, CO 80222

American Society of Zoologists
Box 2739
California Lutheran College
Thousand Oaks, CA 91360

American Statistical Association
806 15th St., N.W.
Washington, DC 20005

American Technical Society
848 E. 58th St.
Chicago, IL. 60637

American Veterinary Medical Association
Department of Public Information
600 S. Michigan Ave.
Chicago, IL. 60605

Archaeological Institute of America
260 W. Broadway
New York, NY 10013

Barron's Educational Series, Inc.
113 Crossways Park Drive
Woodbury, NY 11797

ADDRESSES (continued)

Bausch & Lomb
Science Award Committee
Rochester, NY 14602

Bell & Howell Schools
4141 Belmont Ave.
Chicago, IL. 60641

Bellman Publishing Company
Box 172
Cambridge, MA 02138

B'nai B'rith Vocational Service
1640 Rhode Island Ave., N.W.
Washington, DC 20036

William C. Brown Company
Publishers
135 S. Locust St.
Dubuque, IA 52001

Careers (Career Publications)
Box 135
Largo, FL. 33540

Changing Times Reprint Service
Kiplinger Washington Editors
1729 H. St., N.W.
Washington, DC 20006

Chronicle Guidance Publications
Moravia, NY 13118

College of Pharmaceutical Sciences
Columbia University
115 W. 68th St.
New York, NY 10023

Columbia University
School of Engineering
& Applied Science
Columbia University
New York, NY 10027

Committee on International
Exchange of Persons
(Senior Fulbright-Hays Program)
2101 Constitution Ave. N.W.
Washington, DC 20418

The John Day Company
62 W. 45th St.
New York, NY 10036

Decision/Inc.
Decision Building
Batavia, OH 45103

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College Relations
Midland, MI. 48640

E.I. du Pont de Nemours & Company
Wilmington, DE 19898

E.P. Dutton & Company, Inc.
201 Park Ave., South
New York, NY 10003

Eastman Kodak Company
Education Division
343 State St.
Rochester, NY 14650

Electonic Industires Association
2001 Eye St., N.W.
Washington, DC 20006

Engineering Manpower Commission
Engineers Joint Council
345 E. 47th St.
New York, NY 10017

Engineers' Council for Professional
Development
345 E. 47th St.
New York, NY 10017

Engineering Opportunities
2211 Fordem
Madison, WI 53701

General Motors Corporation
Public Relations Staff
Detroit, MI 48202

General Motors Corporation
Educational Relations Section
Technical Center
Warren, MI 48089

Harper & Row, Publishers, Inc.
49 E. 33rd. St.
New York, NY 10016

The Institute of International Educa-
tion
809 United Nations Plaza
New York, NY 10017

ADDRESSES (continued)

International Business Machines Corporation
112 E. Post Rd.
White Plains, NY 10601

International Programs
Michigan State University
East Lansing, MI 48823

International Schools Services
392 Fifth Ave.
New York, NY 10018

The Jackson Laboratory
Assistant Director (Training)
Bar Harbor, ME 04609

Junior Engineering Technical Society
(JETS, Inc)
United Engineering Center
345 E. 47th St.
New York, NY 10017

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Sumneytown Pike
North Wales, PA 19440

Eli Lilly and Company
Box 618
Indianapolis, IN 46206

Manufacturing Chemists
Association, Inc.
1825 Connecticut Ave., N.W.
Washington, DC 20009

Mathematics and Science Center
2200 Mountain Rd.
Glen Allen, VA 23060

The Mathematical Association of America
1225 Connecticut Ave., N.W.
Washington, DC 20036

Julian Messner, Inc
Division of Simon & Schuster, Inc.
1 West 39th St.
New York, NY 10018

Michigan State University
Department of Agricultural Engineering
East Lansing, MI 48823

University of Missouri-Rolla
Admissions Office
103 Parker Hall
Rolla, MO 65401

National Aerospace Education Council
806 15th St., N.W.
Washington, DC 20005

National Academy of Sciences; National
Academy of Engineering, National
Research Council
2101 Constitution Ave., N.W.
Washington, DC 20418

National Association of Chain Drug
Stores, Inc.
1911 Jefferson Davis Hwy.
Arlington, VA 22202

National Association of State
Universities and Land-Grant Colleges
Office of Institutional Research
One Dupont Circle, N.W.
Suite 710
Washington, DC 20036

National Council of Teachers of
Mathematics*
1201 16th St., N.W.
Washington, DC 20036

National Council for the
Social Studies*
1201 16th St., N.W.
Washington, DC 20036

National Education Association*
1201 16th St., N.W.
Washington, DC 20036

National Environmental Health Associa-
tion
1550 Lincoln St.
Denver, CO 80203

National Health Council, Inc.
1740 Broadway
New York, NY 10019

ADDRESSES (continued)

National Landscape Association
832 Southern Bodg.
Washington, DC 20005

National League for Nursing, Inc.
10 Columbus Circle
New York, NY 10019

National Science Teachers Association*
1201 16th St., N.W.
Washington, DC 20036

National Society of Professional Engineers
2029 K St., N.W.
Washington, DC 20006

National Vocational Guidance Association
1607 New Hampshire Ave., N.W.
Washington, DC 20009

National Wildlife Federation
1412 16th St., N.W.
Washington, DC 20036

New Jersey Engineers' Committee for
Student Guidance
Newark College of Engineering
323 High St.
Newark, NJ 07102

Northwestern University
Director, National High School Institute
in Engineering Science
Evanston, IL. 60201

Oak Ridge Associated Universities
Box 117
Oak Ridge, TN 37830

The Ohio State University
University Publications Sales
2500 Kenny Rd.
Columbus, OH 43210

Optical Society of America
2100 Pennsylvania Ave., N.W.
Washington, DC 20037

Charles Pfizer & Company, Inc.
Educational Services Department
235 E. 42nd. St.
New York, NY 10017

Phillips Academy
Dean of the Faculty
Andover, MA 01810

Public Affairs Committee
381 Park Ave., South
New York, NY 10016

Purdue University
Office of the Dean of Engineering
Lafayette, IN 47907

Registry of Medical Technologists
710 S. Wolcott Ave.
Chicago, IL. 60612

Richards Rosen Press, Inc.
29 E. 21st. St.
New York, NY 10010

Rochester Institute of Technology
Public Relations Department
One Lomb Memorial Drive
Rochester, NY 14623

Science Research Associates
Guidance Services Department
259 E. Erie St.
Chciago, IL 60611

Science Service
1719 N St., N.W.
Washington, DC 20036

Scientific Manpower Commission
2101 Constitution Ave., N.W.
Washington, DC 20418

Scientists of Tomorrow
312 E. First St.
Newburg, OR 97132

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New York, NY 10020

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3 Stone Hall
Cornell University
Ithaca, NY 14850

Shell Oil Company
50 West 50th St.
New York, NY 10020

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Simon & Schuster
Regents Publishing Company Division
200 Park Ave., South
New York, NY 10003

Society of American Florists
Executive Director
901 N. Washington St.
Alexandria, VA 22314

Society of American Foresters
1010 16th St., N.W.
Washington, DC 20036

Society of Exploration Geophysicists
Howard Breck, Executive Secretary
Box 3098
Tulsa, OK 74101

Society of Mining Engineers of AIME
345 E. 47th St.
New York, NY 10017

Society of Petroleum Engineers
American Institute of Mining,
Metallurgical, and Petroleum Engineers
6300 N. Central Expressway
Dallas, TX 75206

Society of Technical Writers and Publishers
1010 Vermont Ave., N.W.
Washington, DC 20005

Soil Conservation Society of America, Inc.
7515 Northeast Ankeny Road
Ankeny, IA 50021

Steck-Vaughn Company
Box 2028
Austin, TX 78767

Upjohn Company
Kalamazoo, MI 49001

Vocational Guidance Manuals, Inc.
235 E. 45th St.
New York, NY 10017

Wildlife Management Institute
709 Wire Bldg.
Washington, DC 20005

The Wildlife Society
Suite S-176
3900 Wisconsin Ave., N.W.
Washington, DC 20016

U.S. GOVERNMENT AGENCIES

U.S. Department of Agriculture
Office of Information
Washington, DC 20250

Department of the Army
Office of the Chief of Engineers
Civilian Personnel Division
Washington, DC 20314

U.S. Atomic Energy Commission
Division of Technical Information
Box 62
Oak Ridge, TN 37830

U.S. Civil Service Commission
Washington, DC 20415

Interagency Board of Civil Service Examiners
1900 E. St., N.W., Room 1416
Federal Job Information Center
Washington, DC 20415

U.S. Office of Education
Teacher Exchange Section
Division of International Exchange and Training
Institute of International Studies
Washington, DC 20202

Food and Drug Administration
U.S. Department of Health, Education, and Welfare
Washington, DC 20204

Forest Service
U.S. Department of Agriculture
Washington, DC 20250

U.S. Government Printing Office
Superintendent of Documents
Washington, DC 20402

U.S. Department of Labor
Bureau of Labor Statistics
Washington, DC 20212

U.S. Department of Labor
Wage and Labor Standards Administration
Women's Bureau
Washington, DC 20210

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National Aeronautics and Space Administration
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Washington, DC 20234

National Park Service
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National Science Foundation
Assistant Director of Scientific Personnel and Education
Washington, DC 20550

U.S. Naval Oceanographic Office
Washington, DC 20390

Peace Corps
Office of Volunteer Placement
Washington, DC 20525

The Smithsonian Institution
Publications Distribution Section
Washington, DC 20560

Careers Related to Science & Technology

Agricultural Engineer (production and processing of food, farm equipment, soil and water.)

Farmer

Florist

Horticulturist (dealing with plants, landscaping, pest control and food processing)

Anthropologist (studies ancient civilizations)

Archaelogist (digs up and studies old relics of past civilizations)

Architect (designs homes, buildings, etc.)

Astronomer (studies the stars, planets, etc.)

Atomic Scientist (works with atomic energy)

Pilot

Stewardess

Space Scientist

Aerospace Engineer (designs and builds space ships, rockets, etc.)

Astronaut

Biologist (studies all living things)

Ecologist (studies living things and how they relate to their environment)

Microbiologist (studies microscopic plants and animals)

Fishery Biologist works specifically with fish)

Wildlife Biologist (studies relationwhip of wildlife populations to their environment)

Chemist

Conservationist (works outdoors to conserve our natural resources)

Park Ranger

Dentist

Dental Hygienist (cleans teeth only)

Careers Related to Science & Technology (continued)

Dietitian (plans meals for hospitals, schools, etc.)

Computer Scientist (works with computers)

Engineer

Forester (works in forest management, cutting and planting trees)

Nurseryman (grows and sells plants and trees)

Landscaper (designs outdoor areas similar to way architect plans indoor areas)

Geologist (studies rocks and minerals)

Home Economist (may be related to foods, textiles, home management, family relationships, etc.)

Draftsman (draws plans for machines, buildings, etc.)

Mathematician

Statistician (works with statistics)

Doctor (M.D. who treats some part of the body or all of it)

Registered Nurse (male or female)

Medical Research Scientist

Medical Technologist (performs medical tests)

Laboratory Technician (performs lab tests on blood, urine, etc.)

Optometrist (tests and fits people for glasses)

Opthomologist (eye doctor)

Surgeon (performs operations)

Radiologist (interprets X-rays)

X-ray technician (takes X-rays)

Physiologist (studies chemistry of the body)

Psychiatrist (treats mental or emotional problems)

Physical Therapist (teaches handicapped people to use hands, arms, legs, feet again)

Hospital Orderly (men who assist nurses with heavy hospital work)

Hospital Attendants (women who assist nurses)

Careers Related to Science & Technology (continued)

Practical Nurse (assist registered nurses in hospital)

Meteorologist (studies patterns of weather)

Weatherman (reports the weather)

Mining Engineer (manages the mining of coal, copper, etc.)

Oceanographer (studies ocean currents, animals, etc.)

Pharmacist (prepares and sells drugs)

Photographer

Physicist (deals with science of physics)

Electronics Technician (fixes TV, radio, etc.)

Science Teacher

Math Teacher

Technical Writer (writes scientific articles)

Veterinarian (doctor for animals)

Anesthetist (registered nurse who gives anesthesia to put people to sleep before an operation)

Medical Secretary (in hospital or doctors office)

APPLICATION FOR EMPLOYMENT

(PLEASE PRINT)

PERSONAL DATA

Mr Miss Mrs Last Name	First Name	Initial	Maiden Name	Social Security Number

Address No. Street	City	State	Zip Code	Telephone Number Area Code

Date of Birth	Age	Married [ ] Single [ ] Widowed [ ] Divorced [ ] Separated [ ]	Number of Children	Age Range of Children

Height	Weight	Physical defects or health problems

Were you ever in our employ? Yes [ ] No [ ]	When?	In what capacity?

Are you acquainted with anyone who is or has been in our employ? Yes [ ] No [ ] If so, name What position Currently Employed? [ ] Yes [ ] No

Have you ever been convicted of any crime? Yes [ ] No [ ]	Have your wages ever been garnished? Yes [ ] No [ ]	What will be your means of transportation to the job? Primary Alternate

Military Service Yes [ ] No [ ]	Branch of Service	Dates of Service From to	Type of Discharge [ ] Honorable [ ] Other	Current Draft Status	Reserve Status [ ] None [ ] Active [ ] Inactive

Husband or Wife's Name	Occupation	Employer

In case of emergency whom should we notify?	Relationship	Telephone

EDUCATIONAL DATA

Are you a graduate of high school? Yes [ ] No [ ]	If no, how many years attended	Name of high school

Years of college	Name of college	Trade or special schools

PROFESSIONAL DATA

(Professional personnel complete the following)

Graduate of (nursing or professional school)	Address	Year

Have you had any post graduate work? Yes [ ] No [ ]	Where?

Special schools attended	Registered in Missouri Yes [ ] No [ ]	Pending Yes [ ] No [ ]	Member of Third Dist. Yes [ ] No [ ]

License No.	Member of Professional Organization

EMPLOYMENT DATA

Are you willing to work any shift? Yes [ ] No [ ]	Do you only want to work a specific shift? Yes [ ] No [ ]	If Yes, what shift? Day [ ] Rotating [ ] Evening [ ] Night [ ]

Will you work [ ] Full Time [ ] Part Time	Are you willing to work weekends and/or holidays? Yes [ ] No [ ]	When will you be available for employment?

Are you willing to submit to periodic physical examinations?	Type of work desired	Salary expected

Specialized hospital experience

Specialized office experience

Additional work experience

Please give two character references (do not give relatives or former supervisors).	Address	Phone Number
1.		
2.	Address	Phone Number

(Starting with your present or last employment, please answer all questions)

1

Name of Employer	Address			Phone Number
Your Job Title	Starting Date	Starting Salary	Date Left	Ending Salary
Reason for Leaving	Supervisor's Name	Supervisor's Title	May be contacted Yes [ ] No [ ]	

2

Name of Employer	Address			Phone Number
Your Job Title	Starting Date	Starting Salary	Date Left	Ending Salary
Reason for Leaving	Supervisor's Name	Supervisor's Title	May be contacted Yes [ ] No [ ]	

3

Name of Employer	Address			Phone Number
Your Job Title	Starting Date	Starting Salary	Date Left	Ending Salary
Reason for Leaving	Supervisor's Name	Supervisor's Title	May be contacted Yes [ ] No [ ]	

MAJOR CONDITIONS OF EMPLOYMENT

Please read these conditions and sign the certification statement below.

1. In order to meet the needs of patients for 24-hour-a-day, seven-day-a-week care, employees must agree to perform work over a period of 14 successive days (80 hours at 8 hours per day) before qualifying for overtime compensation and must be willing to accept changes in shifts and days when necessary.
2. Employment is contingent on passing a physical examination by a physician in the Employee Health Service. Any health condition which may cause hazard to yourself or others on the job must be reported and shall be good cause for terminating your employment at DEACONESS HOSPITAL with cause.
3. Any false, misleading or omitted material facts which you write on DEACONESS HOSPITAL forms are good cause for terminating your employment with cause.
4. If your qualifications meet the minimum requirements for a vacant position, you will be referred to the appropriate department for an employment decision. When this decision has been made, you will return to the Personnel Office to be processed for hiring, consideration for other positions, or your application will be placed on file for future consideration.
5. This application will be retained for six months. If you wish to be considered thereafter, you will be required to reapply for employment with an up-dated application.
6. If you are employed as a full-time employee, you will be required to enroll in a group term insurance plan after three months of employment. The amount of the insurance will be approximately your annual salary. You, along with the hospital, will contribute to the cost of this insurance on a basis to be determined by DEACONESS HOSPITAL.
7. You grant permission for the authorities of this hospital to investigate your references and release said hospital from any and all liability resulting from such investigation. Upon your termination you authorize the release of reference information on your work.
8. DEACONESS HOSPITAL is an Equal Opportunity Employer and will not discriminate on the basis of race, creed, color, national origin or ancestry.

CERTIFICATION: I have read and agree to the conditions of employment stated on this application.

_____ _____

Applicant *Date*

PLEASE DO NOT WRITE BELOW THIS LINE

Date Employed _____ Department _____

Job _____ Beginning Salary _____ Authorized _____

Remarks _____

_____